Louisiana Believes

Louisiana Guide to Piloting OpenSciEd: Grade 7

This document provides guidance to assist seventh-grade teachers with the field-testing of OpenSciEd units. This guidance document is considered a "living" document, as we believe that teachers and other educators will find ways to improve the document as they use it. Please send feedback to classroomsupporttoolbox@la.gov so that we may use your input when updating this guide.

Updated January 11, 2022

DEPARTMENT of EDUCATION
Louisiana Believes

Table of Contents

Overview of OpenSciEd 3
Sample Scope and Sequence 4
Alignment with EAGLE 2.0 5
Distance Learning Support 7

Overview of OpenSciEd

OpenSciEd is an effort among science educators, curriculum developers, teachers and philanthropic foundations to improve the supply of and demand for high-quality K-12 science instructional materials by producing open-sourced, freely available instructional materials designed for college and career-ready science standards. OpenSciEd works with classroom educators, experienced science curriculum developers, individual school districts, education non-profit Achieve, and the science education community to create and pilot robust, research-based, open-source science instructional materials.

Field Testing and Release of Units

Ten partner states volunteered to join this effort including: California, Iowa, Louisiana, Massachusetts, Michigan, New Mexico, New Jersey, Oklahoma, Rhode Island and Washington. After the initial development of the OpenSciEd units, the unit prototypes or **field test units** undergo rigorous external review and robust field-testing in participating classrooms across partner states. Seven Louisiana districts are involved in field-testing the units. The field test units are revised based on the feedback and data collected. The revised or **complete** units are submitted to Achieve's EQuIP Peer Review Panel and made freely and openly available to the public upon earning a quality rating. The OpenSciEd release schedule provides for **complete units** to release three at a time beginning August 2019 with the entire middle school program (18 units total) fully completed and released in early 2022.

Unit Design & Sample Scope and Sequence

The units in the OpenSciEd Sample Scope and Sequence include bundles of performance expectations that are built around an anchor phenomenon. The scope and sequence integrates the OpenSciEd curriculum and the Grade 7 Louisiana Sample Scope and Sequence. The scope and sequence does not illustrate the only appropriate sequence to teach the units. The units can be organized into different learning sequences, and the performance expectations can be bundled around different phenomena.

The OpenSciEd units may include performance expectations from previous or future grade levels. These units are intentionally designed to provide students the opportunity to incrementally make sense of phenomena to build understanding and abilities over time through a coherent storyline. Modification to the sequence or content of lessons within these units could undermine the design, and therefore is not recommended and should be approached with caution and careful consideration.

Contact

For questions or requests for additional information on the OpenSciEd initiative and/or materials, contact info@openscied.org.

Sample Scope and Sequence

	Unit 1 Thermal Energy OpenSciEd Unit 6.2	Unit 2 Weather, Climate, and Water Cycling OpenSciEd Unit 6.3	Unit 3 Chemical Reactions & Matter Transformations OpenSciEd Unit 7.1	Unit 4 Metabolic Reactions OpenSciEd Unit 7.3	Unit 5 Matter Cycling & Photosynthesis OpenSciEd Unit 7.4	Unit 6 Ecosystem Dynamics OpenSciEd Unit 7.5	Unit 7 Genetics & Inheritance of Traits (LA Scope and Sequence Unit)
Anchor Phenomenon	How can containers keep stuff from warming up or cooling down?	Why does a lot of rain, hail, or snow fall at some times and not others?	How can we make something new that was not there before?	How do things inside our bodies work together to make us feel the way we do?	Where does food come from and where does it go next?	How does changing a ecosystem affect what lives there?	Four out of seven children in the Fugate family have blue skin and fingernails.
Standards	7-PS1-4* 7-PS3-4 8-PS3-3 8-PS3-5 6-PS4-2*	7-ESS2-4 7-ESS2-5 7-ESS2-6 7-PS1-4*	7-PS1-2 7-PS1-5 6-PS1-1	7-LS1-3* 7-LS1-7 8-LS1-5*	7-LS1-6 6-LS2-3 8-PS1-3	7-LS2-4 7-LS2-5 6-LS2-1 6-LS2-2	7-LS3-2 7-LS4-4 7-LS4-5
Resource	*Complete Unit*	*Complete Unit*	*Complete Unit*	*Complete Unit*	*Complete Unit*	Complete *Unit*	*Louisiana Sample Scope and Sequence Unit*
Additional Resources	*Distance Learning Optional Pacing*	*Distance Learning Optional Pacing*	*Distance Learning Optional Pacing*	*Distance Learning Optional Pacing*	*Distance Learning Optional Pacing* (coming soon)	*Distance Learning* (field test version)	

† 7-ESS3-5 is not addressed by the Grade 7 OpenSciEd units. The performance expectation can be addressed by incorporating the Grade 7 Louisiana Sample Scope and Sequence units as needed. The performance expectation is partially addressed using the identified phenomenon and is addressed in multiple units.*

Alignment to LDOE Eagle Assessment Items for Scope and Sequence Version A

EAGLE is a bank of assessment items created by Louisiana educators to support formative assessment in the classroom and appear on the K-12 Science Planning Page. These items may be used in conjunction with guidance from the high-quality curriculum as opportunities for students to demonstrate what they have learned.

Grade 7	EAGLE Discrete Items	EAGLE and Practice Test Item Sets
Thermal Energy OpenSciEd Unit 6.2	Brass Experiment (7-PS1-4) Jeff's Models (7-PS1-4) Temperature Increase (7-PS3-4)	Melting Icebergs (7-PS1-4, 7-PS3-4) Spider Plants (7-PS1-4, 7-PS3-4)
Water Cycling and Weather OpenSciEd Unit 6.3	Water Cycle (7-MS-ESS2-4) Washington Rainfall (7-MS-ESS2-5)	Arizona Monsoon (7-ESS2-5, 7-ESS2-6)
Chemical Reactions: Bath Bomb OpenSciEd Unit 7.1	Two Solids (7-MS-PS1-2) Hydrogen Iodide (7-MS-PS1-2) Pesticides (7-MS-PS1-5)	
Metabolic Reactions OpenSciEd Unit 7.3	Artificial Windpipe (7-MS-LS1-3) Dandelions (7-MS-LS1-7)	Louisiana Swamplands (7-LS1-7, 7-LS1-6)
Genetics and Inheritance of Traits (Alternate Unit)	Whiptails (7-MS-LS3-2) Siblings (7-MS-LS3-2) Cystic Fibrosis (7-MS-LS3-2) Amoebas (7-MS-LS3-2) Anoles (7-MS-LS4-4) Feral Chickens (7-MS-LS4-4) Arctic Apples (7-MS-LS4-5) Shar Pei (7-MS-LS4-5)	Coral (7-MS-LS2-4, 7-MS-LS4-4) Spider Plants (7-MS-LS3-2, 7-MS-LS4-4)

Biodiversity and Changes	Items Coming Soon	Zebra Mussels (7-LS2-4, 7-LS2-5) Volcanic Carbon (7-ESS3-5, 7-PS1-5) Coral (7-LS2-4, 7-LS4-4) Dead Zone (7-LS1-7, 7-LS2-5)
Additional Standards	White Chuck Glacier (7-MS-ESS3-5)	

Distance Learning Support

To support school systems, schools, and teachers in ensuring continuous learning in science, the Department will release guidance for implementing OpenSciEd in a hybrid or distance learning setting for every available OpenSciEd Unit.

Distance learning plans for each unit will contain the following:

- Links to OpenSciEd remote learning resources
- Unit guidance
- Detailed lesson-by-lesson guidance, including activities and slides for virtual classes
- Printable lesson documents to send home with students

The resources available now are linked below:

- OpenSciEd Distance Learning – This document contains links to distance learning support for each unit
- OpenSciEd Distance Learning Support Webinar Slide Deck and Video
- Release Schedule for Science Distance Learning